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ABSTRACT

In it's first year, Project Aprendizaje served 250 students from the Dominican Republic and Puerto Rico at Seward Park High School in Manhattan (New York). Project objectives were to improve participants' language skills in Spanish and English, help participants successfully complete content area courses needed for graduation, and provide career orientation and skills to help participants enter the work force or higher education. Instruction was provided in English as a Second Language (ESL), native language arts (NLA), mathematics, global history, American government, advanced Spanish, and occupation and computer/business technology. The project met its objectives in ESL, student attendance, advanced Spanish, keyboarding, staff development, suspension rate, and extracurricular activities. Data were not appropriate to evaluate the NLA objective, and sample size was too small to evaluate one career advancement objective. Development of upper level curricula, using a mastery learning approach, to increase language capabilities before mainstreaming is recommended. (MSE)

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OREA Report

EVALUATION SECTION REPORT

PROJECT APRENDIZAJE
Grant Number T003A80043

1988-89

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EVALUATION SECTION
John E. Schoener, Chief Administrator
March 1990

EVALUATION SECTION REPORT

PROJECT APRENDIZAJE
Grant Number T003A80043

1988-89

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PROJECT APRENDIZAJE
1988-89

SUMMARY

- Project Aprendizaje was fully implemented. During 1988-89, project students received instruction in English as Second Language, Native Language Arts, and content area and career advancement subjects. They also received guidance and tutoring services.

- The project met its objectives for E.S.L., advanced placement Spanish, keyboarding, student attendance, suspension rate, and extracurricular activities. It did not provide appropriate data to assess the N.L.A. objective. The project failed to meet its objectives in other content area or career advancement subjects.

Project Aprendizaje, a Title VII program in the first year of a three-year funding cycle, served 250 students from the Dominican Republic and Puerto Rico at Seward Park High School in Manhattan. The objectives of the project were to improve participants' language skills in both English and Spanish, help them successfully complete the major content areas needed for graduation, and provide them with career orientation and skills to help them enter the work force or higher education.

Project personnel used the Language Assessment Battery (LAB) in English and Spanish to test students' language skills for appropriate placement. The project proposed instructional objectives in English as a Second Language (E.S.L.); Native Language Arts (N.L.A.); the content area subjects of mathematics, global history, and American government; advanced Spanish; and occupational and computer/business technology skills. The program proposed non-instructional objectives in attendance, suspension rate, student participation in extracurricular activities, and staff development.

The project met its objectives in E.S.L. It also met the student attendance, Advanced Placement Spanish, keyboarding, staff development, suspension rate and extracurricular activities objectives. Data were not appropriate to evaluate the N.L.A. objective, and the sample size was too small to evaluate one career advancement objective.

The conclusions, based on the findings of this evaluation, lead to the following recommendation:

- Develop upper level curricula, using a mastery learning approach, to increase students' language capabilities prior to mainstreaming.

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I. INTRODUCTION

This report documents the Office of Research, Evaluation, and Assessment (OREA's) evaluation of Project Aprendizaje at Seward Park High School, Manhattan. The project was in its first year of a three-year Elementary and Secondary Education Act (E.S.E.A.) Title VII funding cycle.

Project Aprendizaje's objective was to help students acquire job-related skills in both the Spanish and English languages. The project also sought to create an educational environment that fostered students' self-esteem by diminishing the incidence of failure. Project staff aimed to mainstream students as soon as possible so they could fulfill graduation requirements and enter the work force or continue their education.

HISTORY OF PROGRAM

Project Aprendizaje was initiated to help Spanish-speaking students of limited English proficiency (LEP students) at Seward Park High School gain the skills necessary for graduation and entry into the work force.

SETTING

Seward Park High School is located on the Lower East Side of Manhattan, which has always been a port of entry for immigrants and, therefore, economically deprived. For the past ten years Seward Park has housed many Title VII Chinese and Spanish bilingual programs.

PARTICIPATING STUDENTS

Project Aprendizaje served 250 ninth to twelfth grade LEP students of Hispanic origin, most of whom were from the Dominican Republic and Puerto Rico. Most students were from low-income families, as evidenced by their participation in the school's free lunch program. Many students had very few years of education in their native countries or had never attended school at all before coming to the United States. About 85 percent had less than two years of education in the United States, and about 67 percent of the students were over-age for their grade placement. (See Table 1.) Students experienced such problems as adverse neighborhood conditions, sickness, poverty, and crowded living conditions.

STAFF

Project Aprendizaje funded a curriculum specialist (one-third time), a resource specialist, and five paraprofessionals. The curriculum specialist had a master's degree, taught bilingual social studies, provided general orientation to parents and students, and developed and modified the global history curriculum. The resource specialist had a master's degree, was in charge of cultural and artistic activities, and developed Spanish materials for the Native Language Arts (N.L.A.) courses. Of the five paraprofessionals, one served as office administrator and the others assisted teachers and acted as translators and tutors. The school principal supervised all project personnel,

TABLE 1

Number of Program Students by Age and Grade[a]

Age	Grade 9	Grade 10	Grade 11	Grade 12	Total
14	3	2	1	0	6
15	6	8	1	0	15
16	13	19	6	0	38
17	20	29	13	2	64
18	10	16	11	64	48
19	2	9	9	10	30
20	0	2	6	6	14
22	0	0	0	2	2
TOTAL	54	85	47	31	217[b]

	Over-Age Students for Grade				
Number	45	56	26	18	145
Percent	83.3	65.9	55.3	58.1	66.8

Note: Outlined boxes indicate expected age range for grade.

[a]As of June 1989.
[b]Data were missing for four students.

- Most participating students were in tenth grade.
- Two-thirds of the participating students were over-age for their grade.

the E.S.L. chairperson supervised the tax-levy teachers who served project students.

DELIVERY OF SERVICES

The project provided academic activities to facilitate student performance in global history, American government, biology, mathematics, and Advanced Placement (A.P.) Spanish and assist their entry into bilingual careers with a career advancement sequence. The project provided intensive guidance services and a number of cultural activities.

REPORT FORMAT

This report is organized as follows: Chapter II describes the evaluation methodology; Chapter III presents an analysis of the qualitative findings of the evaluation; Chapter IV presents an analysis of the quantitative findings; and Chapter V offers conclusions and a recommendation based upon the results of the evaluation.

II EVALUATION METHODOLOGY

EVALUATION QUESTIONS

This evaluation assessed two major areas: program implementation and program outcomes. Evaluation questions included the following:

Process/Implementation

- Did the project implement activities for developing English language proficiency as proposed?
- Did the project implement activities for developing Spanish language proficiency as proposed?
- Did the project implement instructional activities for developing job skills and good citizenship?
- Did participating students receive appropriate guidance assistance?
- Did the project provide staff development so that the staff might better serve the target population?

Outcomes

- What percentage of target students achieved passing grades on their E.S.L. final examinations?
- Did students show an increase in N.L.A. skills?
- How did the attendance rate of program students compare with that of mainstream students?

EVALUATION PROCEDURES

Sample

An OREA field consultant visited the program site and observed five classes. She interviewed the program director, the school principal, and the bilingual guidance counselor. The field consultant also met with the resource specialists and two

tax-levy teachers who had program students in their classes.

Instruments

OREA developed interview and observation schedules. Project personnel used OREA-developed data retrieval forms to report student demographic, attendance, and achievement data.

Data Collection

Interviews and observations took place in May, 1989. The program administrative staff received a director's questionnaire and students' data forms in December and May. They returned the completed documents to OREA in February and June.

Data Analysis

OREA used the Language Assessment Battery to assess improvement in English proficiency. Project Aprendizaje students were tested at grade level each spring. Students' raw scores were converted to Normal Curve Equivalent (N.C.E.) scores, which have multiple advantages over other scoring methods. They are standard, normalized, and form an equal interval scale. ("Standard" indicates that the unit of measurement is a fraction of the standard deviation of the original distribution of raw scores; "normalized" refers to the fact that the scale is adjusted for the norm group so that its distribution has the shape of a normal distribution; and "equal interval scales" allow for legitimate aggregation or averaging of scores.) Project students' N.C.E.s indicated their relative standing in relation to the national average of 50.

To assess the significance of students' achievement in English, OREA computed a correlated t-test on LAB N.C.E. scores. The t-test determined whether the difference between the pre- and posttest scores was significantly greater than would be expected by chance variation alone.

To insure representative achievement data, OREA included only those students who had been in the program for at least five months and had attended classes for at least 100 school days. OREA extrapolated to estimate full-year scores of late-arriving and early-exiting students.

Limitations

Since all LEP students are entitled to receive bilingual and E.S.L. services, OREA was unable to select an equivalent control group. However, the use of two sets of data, as outlined above, served in lieu of a control group.

III. EVALUATION FINDINGS: IMPLEMENTATION

STUDENT PLACEMENT AND PROGRAMMING

LEP students whose native language was Spanish were eligible for participation in Project Aprendizaje. Students were designated LEP if they scored below the twenty-first percentile on the English version of the Language Assessment Battery (LAB)*.

INSTRUCTIONAL ACTIVITIES

English as a Second Language

E.S.L. classes ranged from elementary to advanced. Students received E.S.L. instruction in conjunction with reading. Project Aprendizaje staff encouraged students to use the project's tutoring services, available throughout the day.

Native Language Arts

The project offered elementary, intermediate, and Regents-level Spanish N.L.A. classes. N.L.A. courses sought to develop students' knowledge of their native language in such a way that they could market it in the work force. The OREA field consultant observed an N.L.A. class that was studying traditional Latin American legends.

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*The Language Assessment Battery (LAB) was developed by the Board of Education of the City of New York to measure the English-language proficiency of non-native speakers of English in order to determine whether their level of Enlgish proficiency is sufficient to enable them to participate effectively in classes taught in English. Students scoring below the twenty-first percentile on the LAB are entitled to bilingual and E.S.L. services.

Content Area Subjects

Mathematics. The project offered two remedial pre-algebra courses for students whose instruction in mathematics had been at the elementary level in their native countries. A computer class introduced students to mathematical concepts used in the field of computers.

Social Studies. The school offered bilingual courses in American government, global history, and American history. These courses encompassed American citizenship and culture. The OREA consultant observed a bilingual American history class of 28 tenth and eleventh grade students. Students appeared to understand the subject matter under discussion and participated enthusiastically. It was difficult to mainstream students from this class because of students' serious deficits in the English language. The school administration has recognized a need for upper-level courses using a mastery learning approach.

Science. While the bilingual biology classes used Spanish materials, they had a strong English emphasis. Whenever necessary, students helped each other with explanations in Spanish.

Advanced Placement (A.P.) Spanish

A field consultant observed an A.P. Spanish class of 24 students. Students read aloud, translated from Spanish to English, answered reading comprehension questions, and discussed the social and political concepts in the story. The teacher highlighted specialized vocabulary. As a final activity, several

students summarized the story aloud.

Career Advancement Sequence

The project offered courses in computer literacy as well as career training in typing, job skills, and computer mathematics.

Typing. The OREA field consultant observed a typing class of eight students. In reviewing spacing, the teacher provided instructions in English, and a paraprofessional translated whenever necessary. Both the teacher and the paraprofessional went from student to student, checking work and answering questions. All materials were in English, but the paraprofessional translated them on students' demands.

Job Skills. The consultant observed a job skills class of 13 students. The class discussed the qualifications required for various jobs. The teacher conducted the class in English with occasional help in Spanish from a paraprofessional. Students worked on writing a resume and discussed the proper dress code for a job interview and how to find job offers.

Computer Mathematics. The OREA consultant observed a computer class composed of Project Aprendizaje students and students from a Chinese bilingual program. Students were grouped by ethnicity: one row of Hispanic students alternated with one row of Chinese students, which effectively isolated both groups. However, all students were responsive and seemed to enjoy the class.

NON-INSTRUCTIONAL ACTIVITIES

Extracurricular Activities

Extracurricular activities took place throughout the year. Students went to the Museum of Natural History, to the Metropolitan Museum of Art to see a Goya exhibit, and to the new Central Park Zoo. They also went to the Repertorio Español Theater to see Garcia Lorca's play "La Casa de Bernarda Alba." The Latin American Club presented Hispanic-oriented films such as "Stand and Deliver," "Viva Zapata," and "El Tango y el Amor."

Project staff and students planned and presented a Latin American Festival of songs and dances performed by students and directed by one of the resource specialists. Over one thousand people attended.

Students, directed by the resource specialist, produced two editions of the newsletter "La Voz Latina."

Suspension and Dropout Prevention

Project Aprendizaje offered its students a strong support system to prevent dropout and suspension. Two bilingual guidance counselors kept an open door for students in need of counseling or in emergency or stress situations. Prospective dropouts and students with active family and social problems were identified throughout the year. They were called in for counseling sessions and referred, if necessary, to outside agencies.

Staff Development

The program proposed three objectives for staff development:

- By January 30, 1989, 100 percent of Project Aprendizaje personnel will have participated in staff development activities, in-service training workshops, and departmental meetings.
- By June 30, 1989, all the educational assistants will have completed a minimum of six credits towards a bachelor's degree or training in a field related to bilingual education.
- By January 30, 1989, 100 percent of the professional staff will have attended a regional or national conference, meetings, seminars, colloquia, and workshops in the field of bilingual education.

All project personnel attended school meetings where project issues were discussed. All instructional staff participated in bimonthly meetings held by the Seward Park High School administration. The project met its first staff development objective.

The five paraprofessionals completed at least six credits of college work. Again the project accomplished its objective.

All project-funded professional staff attended workshops, conferences, and meetings relating to bilingual education. Project Aprendizaje met its third staff development objective.

Curriculum Development

Project resource specialists developed an advanced Spanish curriculum which was implemented during the spring semester. They also developed sample lesson plans in social studies.

Parental Involvement

Close to 100 parents were involved in the activities of the parent advisory council and attended other project meetings. Almost all the students' families were present at the Latin American Festival. Project staff kept parents informed about activities and plans with newsletters, phone calls, and visits.

IV. EVALUATION FINDINGS: OUTCOME

INSTRUCTIONAL ACTIVITIES

Project Aprendizaje posed instructional evaluation objectives in E.S.L., N.L.A., the content area subjects of mathematics and social studies, A.P. Spanish, and the career advancement sequence of keyboarding, bilingual occupational education, and computer and business technology.

English as a Second Language

The evaluation objective for English language development was:

- As a result of participating in the program, 70 percent of E.S.L. students at all levels will achieve a passing grade of 65 or more on teacher-made final examinations.

In the fall, 84 percent of the 136 students who had been in the program at least five months achieved the passing grade of 65. In the spring, 64 percent of the 115 students meeting these same criteria earned this grade. Overall, 75 percent of these students achieved the passing rate. Therefore, the program met its E.S.L. objective.

Project Aprendizaje used the LAB to assess the students' acquisition of English skills. Complete LAB pretest and posttest scores were available for 115 students. Overall, students made statistically significant ($p < .05$) gains from pretest to posttest ($t = 4.96$). (See Table 2.) Test data confirmed that students had acquired skills in the English language.

TABLE 2

Pretest/Posttest N.C.E. Differences on
Language Assessment Battery, by Grade

Grade	Number of Students	Pretest Mean	Pretest S.D.	Posttest Mean	Posttest S.D.	Difference Mean	Difference S.D.	t value
9	20	4.2	4.9	4.7	7.6	0.5	6.5	0.32
10	51	8.5	8.3	12.8	8.9	4.3	9.3	3.32*
11	31	12.6	10.1	20.1	12.7	7.5	9.9	4.23*
12	13	17.6	11.3	21.8	11.9	4.2	13.3	1.13
TOTAL	115	9.9	9.5	14.4	11.0	4.5	9.7	4.96*

* $p<.05$

- There were significant pretest/posttest differences at these grade levels and for the program students as a whole.

Native Language Arts

The evaluation objective for N.L.A. was:

- As a result of participating in the program, students will show statistically significant gains as measured by pre- and post-assessments with the appropriate level of La Prueba de Lectura, a vocabulary and reading comprehension test.

Project Aprendizaje used the Prueba de Lectura* to assess the development of Spanish language skills. The project provided raw scores for 149 students, who increased an average of five points between the two administrations. However, norms were unavailable for the standardization of the raw scores because the project used non-equivalent forms. Therefore, OREA could not determine whether the project met its N.L.A. objective.

The project also provided grades for teacher-made tests. Students' achievement was excellent. Of those who had been in the program at least five months, 91 percent of the 126 who took the course in the fall and 90 percent of the 85 who took the course in the spring obtained a passing rate of 65 percent or higher.

Advanced Placement Spanish

The objective for A.P. Spanish was:

- As a result of participating in the program, 75 percent of the students will achieve a passing grade of at least 75 in Advanced Placement Spanish on teacher-made final examinations.

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*La Prueba de Lectura. San Antonio, Tx: Guidance Testing Associates, 1980.

Twenty-five students took a semester of A.P. Spanish, and all passed with a grade of at least 75. Thus, the program met its objective for A.P. Spanish.

Content Area Subjects

Mathematics. The evaluation objective for mathematics was:

- As a result of participating in the program, 70 percent of the students will achieve a passing grade of at least 65 in sequential mathematics on teacher-made final examinations.

Forty-eight percent of the students in the fall and 35 percent in the spring achieved the passing criterion. The project failed to meet its objective in mathematics.

Social Studies. The program objective for social studies was:

- As a result of participating in the program, 70 percent of the LEP students will achieve a passing grade of at least 70 in social studies (Global History I and II, and American Government) on teacher- and school-made examinations.

Thirty-two percent of the students attained the 70 percent passing criterion in social studies. Project Aprendizaje did not meet its objective for social studies.

Career Advancement Sequence

Project Aprendizaje proposed career advancement objectives in keyboarding, bilingual occupational education, and computer and business technology.

- As a result of participating in the program, 70 percent of the students will achieve a passing grade of 70 or higher on teacher-made and/or schoolwide examinations in Keyboarding 1.

Of the students who were in the program for five months or more, 73 percent out of the 45 who took the course in the fall and 68 percent out of the 37 who took the class in the spring achieved the passing criterion. Thus, 71 percent of the total number of students who took the course achieved the passing rate of 70 or higher. The program met its evaluation objective in keyboarding.

- As a result of participating in the program, 70 percent of the students will achieve a passing grade of 70 or higher in Bilingual Occupational Education I and II (Preparation for the World of Work).

Considering only those who had been in the program for at least five months, 49 percent of these students passed their bilingual occupational education course in the fall semester; in the spring semester, 51 percent passed. The program did not meet the objective as stated.

- As a result of participating in the program, 70 percent of the students will achieve a passing grade of 70 or higher in computer and business technology on teacher-made final examinations.

The number of students in the computer and business technology course was small, since it was offered as a double-period course each day. The small sample size did not permit statistical analysis. OREA was unable to ascertain whether the project met its objective in computer and business technology.

NON-INSTRUCTIONAL ACTIVITIES

Student Attendance

The program objective for student attendance rate was:

- By June 30, 1989, students in the program will have a rate of attendance at least equal to that of the mainstream students.

Since the school's attendance rate includes the attendance rate of the program students, the statistical significance of the difference between program and school attendance was assessed through the application of a z-test for the significance of a proportion.

The attendance rate for program students was 94 percent, 8 percentage points above the schoolwide attendance rate of 86 percent. The z score of 2.98 indicated that the difference in attendance rates between program and nonprogram students was significant ($p = <.05$). The program achieved its student attendance objective.

Student Suspension Rate

The program objective for suspension rate was:

- By June 30, 1989, students in the program will have a suspension rate no greater than that of the mainstream students.

This objective could not be assessed directly, since there were no data on suspension rates for mainstream students at Seward Park High School. Project Aprendizaje reported that only one student in the program was suspended during the year, while the mainstream students' suspension rate was higher. Therefore, this objective was met.

Extracurricular Activities

- By June 30, 1989, students in the program will have a rate of participation in extracurricular activities at least equal to that of the mainstream students.

Project Aprendizaje did not provide numbers on participation in extracurricular activities by mainstream students. However, the project director pointed out that project students' participation rate was close to 100 percent, and the principal said that the project's extra-curricular activities were the most popular in the school. Aprendizaje also met this objective.

V. CONCLUSIONS AND RECOMMENDATIONS

Project Aprendizaje was fully implemented. It served 221 students whose native language was Spanish at Seward Park High School. During 1988-89, project students received instruction in E.S.L., N.L.A., content area subjects, and subjects in a career advancement sequence. The project also provided guidance and tutoring services. The project's major strength was the development of a strong supportive structure within which the particular needs of a student population with serious educational deficits might be served.

Project Aprendizaje met its objectives for E.S.L., Advanced Placement Spanish, attendance, suspension rate, and extracurricular activities. It also met one of the three objectives in career advancement sequence, namely, that 70 percent of the students would achieve a passing rate of 70 in keyboarding. Although significant learning was apparent, Project Aprendizaje was unable to meet its content area objectives in mathematics or social studies, or its career advancement sequence objective in bilingual occupational education. Because of problems with data, OREA was unable to determine whether the project had met objectives in N.L.A., however; students' performance in teacher-made tests was excellent.

In the computer class, Aprendizaje students and students in a Chinese bilingual project were segregated by the seating arrangement. Had there been greater integration, the two groups

of students might have interacted with each other in English and developed the oral skills each needed.

The conclusions, based on the findings of this evaluation, lead to the following recommendation:

- Develop upper level curricula, using a mastery learning approach, to increase students' language capabilities prior to mainstreaming.